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ABSTRACT

Intended especially for primary grade teachers, the nine papers provide general information regarding the characteristics of various kinds of handicapped children to assist teachers with early identification, making referrals, and educational programing. Articles explain the purpose of special education; why early identification of the mentally retarded is important; the health implications for early elementary handicapped children; the effects of learning disabilities on primary grade children and how to identify them; the difficulty, importance, and ways of identifying the visually impaired; the consequences of hearing impairment on language development and intellectual achievement; and the teacher's role in speech correction. Identified in each case are the classical characteristics of children categorized as retarded health impaired, learning disabled, visually handicapped, and aurally handicapped. In addition, papers review the psychological aspects of a handicap and suggest how and where teachers can obtain help for a handicapped child. (KW)

the early identification of exceptional children

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The Office of the
Superintendent of
Public Instruction
State of Illinois
Michael J. Bakalis
Superintendent

Department of
Exceptional Children

Instructional
Materials Centers

ED056458

PAPERS ON THE EARLY IDENTIFICATION OF EXCEPTIONAL CHILDREN

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FOREWORD

With the passage of House Bill 1407 (Article 14, *The School Code of Illinois*), an historical chapter in the education of handicapped children began in this State.

To initiate a supportive step in creating a better understanding of children with handicaps, these papers were compiled to assist the primary grade teachers in the State of Illinois.

This publication contains pertinent information which may be used at all levels of the school spectrum to aid in the identification and treatment of handicapped children.

Michael J. Bakalis
Superintendent of Public Instruction

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INTRODUCTION

From the beginning of formal special education in about 1940 to the comprehensive programs of the 1970's, Illinois has been one of the leading states in the nation in providing educational opportunities for exceptional children. In spite of the rapid progress, however, there are many exceptional children in regular classes who are not receiving the needed special education services. One major reason for this situation is the lack of information regular classroom teachers have regarding exceptional children. As a result, many exceptional children are not recognized and identified.

In order to achieve the major purpose of early identification, the writers attempted to identify classical features of children categorized as mentally retarded, health impaired, learning disordered, visually impaired and hearing handicapped. Also this publication contains a review of the psychological aspects of handicapped children and suggestions for obtaining help for them.

The primary purpose of this publication is to provide general information regarding the characteristics of various types of exceptional children so it may be possible to assist regular classroom teachers with the early identification, types of referrals and educational programming for these children. If the basic educational goals are to be accomplished, adequate opportunities must be made available; but until accurate identification is achieved, appropriate programs cannot be developed. If early identification is not initiated, the handicapped child cannot receive his rightful educational opportunity.

A note of caution needs to be interjected here. It should be understood that an attempt to isolate characteristics of handicapped children leads to a specific list of signs and symptoms. It is dangerous for a teacher to expect any child in the classroom to possess all of the characteristics in a comprehensive list. As with the average child, not all average features will be displayed in any one child. The characteristics should be thought of as signals which point to possible handicaps. These possibilities should be referred to specialists. Hopefully, the day is past when a teacher feels such referrals stigmatize a child. If an error is made, at least some causes have been eliminated as possible explanations for a child's behavior even though the real causes for a specific problem may not be discovered immediately. When the signals indicate action, action should be taken.

It should also be pointed out that the citizens of the State of Illinois, speaking through their legislators, gave a positive mandate which required all school districts to provide educational opportunities for all exceptional children. There is no doubt that special programs and facilities have support.

There is also no doubt that if children are to become happy and productive and gain insight necessary for living in this complex society, teachers have the responsibility for

reaching them early and placing them properly. If a child is unhappy in his school environment, if he is unproductive, if he meets continual failure, he may develop a warped sense of values. He must be placed properly if he is to have a chance to develop his educational roots and personal values.

Also, and perhaps even more significant, the value system carry-over from childhood through adolescence to adulthood has serious financial and social implications. The following paragraph from the section on "Education and Training" written by the President's Panel on Mental Retardation reiterates these implications:

> Every human being has potential for useful activity. Many individuals, ostensibly severely handicapped physically or mentally, possess considerable work potential. Modern science and action by our social institutions have demonstrated that many of them can become self-supporting and self-reliant if provided special education, rehabilitation, and training services, including counseling, guidance and placement. Obviously it is a great economic gain when a handicapped individual is rehabilitated from a role of idleness and dependency to the status of a full-fledged wage earner and citizen.

CHAPTER I

WHY SPECIAL EDUCATION?

In thinking about services to handicapped children, especially services labeled as special education, teachers should first understand the term and how it relates to the education of these children. The philosophy of the Office of the Superintendent of Public Instruction emphasizes that special education is really nothing unique. In a sense it is special only because it makes a good education a reality for handicapped children who have previously been ignored or rejected. General education and special education are not in any sense divergent directions. What educators want for handicapped children, educators in general have wanted for all children for many years. Goals such as small classes, individual teaching, adequate per pupil expenditures, teachers with special qualifications, etc., are quite common to all educational philosophies. The Division of Special Education Services believes the term "special" has taken hold only as ideas and goals common to regular classrooms have been applied to the education of handicapped children. Perhaps its best claim to being special is that today it exists for handicapped children, while only a few years ago it did not.

Why is special education necessary? What are its merits? Several points can be made to illustrate its value:

1. It has been shown by studies that the income taxes paid by educated and vocationally trained handicapped individuals far exceed the initial costs of providing them with training.

2. From the standpoint of practicality, special classes for the handicapped can be justified because they ease somewhat harassed and frustrated teachers from the roles of being private tutors and disciplinarians. As it is relatively impossible for a regular classroom teacher to provide for the special needs of handicapped children, the placing of these children in special facilities serves a dual role.

3. Frustration from failure may lead to psychological and social problems. Obviously, if a child is in a setting where he may experience success in academic work and social acceptance, tendencies toward destructive behavior will be lessened and chances for social adaptability enhanced.

4. The historical development of education in this country affirms that each child is guaranteed, as a Constitutional birthright, the chance for optimal educational development. If this heritage is to establish today's goals, then no child should be deprived of such a chance to succeed.

5. There is also a moral viewpoint to special education. Even though some people balk at the word "moral," most religions and cultures attest to the fact that man is an individual of worth and one with some kind of moral system. A culture so representative of religious philosophies and full of democratic ideals must emphasize this individual worth.

Why then is there "special" education? In the sense discussed above, it is not special at all, but it provides the necessary facilities and teaching that will enable the handicapped child to break even.

CHAPTER II

WHY EARLY IDENTIFICATION OF THE MENTALLY RETARDED IS IMPORTANT

A group of persons gathered together in the interest of special education some years ago discussed signs of approaching danger which professional persons need to know of in order to deal more effectively with the increased numbers of mentally retarded children coming into our schools. Each of these children must be identified, and each one's educability must be determined as early as possible.

Few people know instinctively how best to help a handicapped child. Teachers know there is an inner law of development which governs the growth of a child who is "normal." Given a favorable physical and emotional environment, the child will grow "normally"; but the inner law of development which governs the growth of a child born handicapped loses reliability. Teachers who are trained to be familiar with the developmental levels of the "normal" must become familiar with different types of development in handicapped children, in this case the mentally retarded. Teachers can learn only by becoming reasonably familiar with some of the causes, characteristics and early signs of mental retardation.

DEFINITION OF EDUCABLE MENTALLY HANDICAPPED

Section 14-1.04 of *The School Code of Illinois* defines educable mentally handicapped children as

> .....children between the ages of five and twenty-one years who, because of retarded intellectual development as determined by individual psychological examinations, are incapable of being educated profitably and efficiently through ordinary classroom instruction but who may be expected to benefit from special educational facilities designed to make them economically useful and socially adjusted.

Article VIII of *Special Educatior Rules and Regulations* from the Office of the Superintendent of Public Instruction explains the comparisons of mentally retarded children with their development:

> The rate of mental development of educable mentally handicapped children is approximately one-half to four-fifths that of children with average intelligence. This is generally interpreted to mean an IQ of 50 to 80 on an individual test of intelligence such as the Binet or Wechsler, except that other relevant factors must also be considered.
>
> Retarded children found to be in the 50 to 60 IQ range may be classified by the qualified psychological examiner as either educable mentally handicapped or trainable mentally handicapped.

It is generally agreed among experts in mental retardation that about three per cent of the population is mentally retarded according to these standards.

CAUSES OF MENTAL RETARDATION

Casual factors associated with mental retardation are generally listed under the following headings:

1. Prenatal and postnatal infections
2. Toxic agents
3. Nutritional deprivation and metabolic disturbances
4. Genetic factors
5. Disorders caused by prenatal, natal and postnatal injuries
   a. Perceptual disturbance
   b. Thinking disorder
   c. Behavior disorder
   d. Motor disorder
6. Cultural and environmental factors
   a. Lack of motivation
   b. Lack of healthy self-concept
   c. Problems of health and nutrition
   d. Family disorganization
   e. Inadequate modes of thinking and perceiving
7. Early emotional deprivation

Knowledge of various common characteristics of mentally retarded children will aid a teacher in identifying these children. The following paragraphs are summaries of characteristics in certain areas of development:

SOCIAL DEVELOPMENT - Interests and abilities of mentally retarded children are similar to those of children with the same mental age rather than the same chronological age. Social development is accompanied by personality deviations which, if not caused by the mental defect, are the result of it. Maladjusted mentally retarded children come from both favorable and unfavorable economic and social surroundings. Since personality development is considered to be the result of the interaction of the human with his social environment, it is inevitable the personalities of the mentally retarded must reflect the thwartings and abuse from their environments; and these children usually differ in their reactions from normal children.

SPEECH - The grammar of a retarded child lacks refinement of tense, number, person, case and often gender. Thoughts expressed are usually consistent with things rather than with ideas. The pronunciation is confused though articulation may be accurate. The vocabulary may be small. Speech may be delayed. Speech and language need to be developed systematically, and the earlier begun, the better. Speech for the mentally handicapped must be developmental rather than simply corrective, but correction is necessarily involved. There must be definite emphasis placed on not only the development of adequate language, but also on its maintenance.

PERSONALITY AND BEHAVIOR - Mentally handicapped children generally lack drive, ambition and stamina and have limited ability to judge, organize or evaluate. They have limited ability to use past experiences to solve present problems; their reactions to impulses are slow; they are easily distracted by extraneous stimuli; and they have limited ability to plan ahead or see possible outcomes. For them learning procedures must be simple and done over longer periods of time.

The scopes of their imaginations are largely limited to the present moment, especially in the familial retarded, and they are limited in their abilities to gain and utilize concepts. They have tendencies to give up on a project before completion and are very likely to become creatures of habit. Since their personalities may reach extremes, they often can not follow directions in any kind of logical order, thus demanding special guidance.

Harold W. Heller of the Council for Exceptional Children summarizes these special learning characteristics in a unique way:[1]

S - slower rate of learning
P - poor language ability, etc.
E - encounters difficulty with abstractions
C - creativity and originality are poor (tends to perseverate and resist change)
I - incidental learning fails to be an effective mode of learning
A - ability to transfer and generalize is poor
L - lowered tolerance for frustration and failure

Mentally retarded children can be classified into three groups: the mild (IQ of 70 to 85), the moderate (IQ of 50 to 75) and the severe (IQ below 50). Those classified as mild or moderate are commonly found in special classes in the public schools and physically cannot be differentiated in appearance or size from the so-called "normal" children.

DIFFERENTIATION BETWEEN SLOW LEARNERS AND THE MENTALLY RETARDED

Just as there are some children in every class who are intellectually gifted, there are also some who are slow learners. Slow-learning children form a group midway between average children and the mentally retarded. In most school systems the mentally retarded will be placed in special classes, while the slow learners are placed in regular classrooms. The great similarity between these two groups makes it very difficult to differentiate between the two. Therefore, it is essential to make early referrals of doubtful cases rather than wait and see how a child gets along or to place the responsibility on immaturity or lack of adjustment.

For example, in the two groups the academic achievement is usually low. In the beginning, slow learners and the mentally retarded are often two years or more behind normal grade achievement. Both tend to "flounder" in regular classes. Although both

groups have the capacity to learn if they are discovered early enough, the slow learners will outdistance the other group. They both have the capacity to develop into useful and productive citizens if they are helped to acquire knowledge necessary for effective living. Every possible help should be given so that whatever ability they may have is not wasted.

According to one report, the two groups share the following traits:[2]

1. Inability to think abstractly or to handle symbolic material.
2. Inability to understand and carry through your directions for assignments.
3. Lack of so-called "common sense" and reasoning level of the chronological age group.
4. Inability to understand complex game rules.
5. Slowness in all areas: academic, social, emotional and physical.
6. Breaks rules of conduct or of games and is often unaware of it.
7. Inability to work independently.
8. Easily confused.
9. Have short interest and attention span.
10. Inability voluntarily to concentrate.
11. Find it extremely difficult, if not impossible, to keep up with the class on academic work.

Those responsible for the education of the two groups should be well acquainted with the kinds of programs provided for both these groups. Although every child has the right to an equal opportunity in education, it does not mean the opportunities will be the same for everyone. It means the opportunities provided for each child will be those that are geared to his strengths and weaknesses and those which will promote maximum learning for him.

Evidence indicates that both groups have a better psychological and social adjustment if a program is started before the children are permitted to face failure during the first years of schooling. It is most difficult to locate children at a preschool level, but some can be located through referrals by pediatricians, public health organizations or social agencies, and through publicity.

Most important for the teacher is his realization that these children need to know how to understand and how to use basic skills rather than to use them very efficiently. The slow learner has the potential of the average learner the majority of the time. Many times some of these children may be found to be simply educationally retarded or have major learning disabilities. The mentally retarded child, on the other hand, does not have the potential of the average, but is definitely educable within a sheltered environment within a total special school situation. He can compete favorably with the so-called average and slow learners and can function at a level of competence within the community, neighborhood, or family in the total society.

When mental retardation is confused with mental illness, identification of the mental retardate is hindered. This confusion may cause attention to be focused on the disabilities rather than the abilities of the retardate child. There is some confusion, some mis-diagnosing, some mis-grouping because many mentally ill children may function at the level of the mentally retarded.

The chart below gives a good concept of the more common differences between the two groups:

	MENTAL RETARDATION		MENTAL ILLNESS
1.	Present at birth or very early age.	1.	Not generally present before school age.
2.	Caused by illness or injury except in rare cases. No sudden change in abilities or adjustment.	2.	Normal in development followed by a gradual or sudden change in behavior or personality.
3.	Lacking in understanding and ability to learn. Behaves like a younger child.	3.	Emotionally unstable, withdrawn, fearful of people or overly talkative with strange worries or ideas. May not have learning or understanding problems.
4.	Treated with drugs mainly when behavior problems exist because of damage to nervous system. Education and training given to help them care as much as possible for themselves.	4.	Treated by drugs (tranquilizers, etc.) or psychotherapy to help patient understand himself and his problems.
5.	Retardation is incurable, most agree.	5.	With successful treatment, difficulties disappear.

"Figure 1: Learning Capacity with Degrees of Mental Retardation" presents a better concept of the differences among the mentally handicapped as a group and emphasizes the possible developmental level the child may attain, providing he can be identified early and receive adequate training.

The importance of an adequate evaluation early in the life of every child suspected of mental retardation cannot be overestimated. Decisions based on erroneous expectations as to the child's capacity can lead to chronic failure resulting in emotional disturbances. The responsibility for early identification of the mentally retarded child rests with the members of professional groups.

GUIDELINES FOR TEACHERS

Teachers should observe children early for the following signs:

I. Personality and behavior

- A. Extreme disinhibition
- B. Extreme rigidity
- C. Extreme fear, timidity, tantrums or affection
- D. Inability to cooperate
- E. Inability to recognize values
- F. Inability to seek and recognize social approval
- G. Inability to make decisions
- H. Inability to accept decisions

II. Language development

- A. Delayed speech
- B. Gesture speech
  - 1. Is it awkward?
  - 2. Is it gross?
  - 3. Is it refined?
- C. Confusion in grammatical construction
- D. Immature use of grammatical construction and expression
- E. Use of gross language only
- F. Lack of development of fluency
- G. Confused patterns of language
  - 1. Limitations of use
  - 2. Stereotyped reproductions

III. Intellectual development

- A. Inability to concentrate
- B. Speed of ability to perceive
  - 1. Perception by listening
    - a. Reaction to sound
      - (1). Does sound stimulate him?
      - (2). Is sound ignored by him?
    - b. Ability to differentiate and give attention
      - (1). Gross sounds
      - (2). Source of sounds
      - (3). Objects of sounds
    - c. Inability to relate and recall sounds
    - d. Attention to spoken language
      - (1). Are manual and verbal guidance needed?

(2). Is face-to-face attention needed continually?
(3). Is more abstract attention possible (standing behind, etc.)?
(4). Is response partial, complete or lacking?

e. Seeing and perceiving
(1). Can he differentiate between materials either completely or partially?
(2). Does he differentiate in a pattern, i.e., smooth sweep, left to right, right to left?
(3). Does he shift or skip items in a sequence?
(4). Does he focus adequately?
(5). Is the attention span adequate, complete, partial or inconsequential?

IV. Transferring and generalizing

A. How does he relate to materials?
B. How does he relate and associate material and the use of material to skills?
1. Is he stimulated?
2. Is he curious?
3. Is he creative?
4. Is he distracted?
C. How well does he handle materials?
D. How does he follow directions?
1. Does he reverse sequence?
2. Does he sequence partially?
3. Does he sequence completely?

V. Motor control

A. Dominance
1. Is dominance established in the eye? In the hand?
2. Is there consistency in all areas?
3. Is there consistent or inconsistent ambiguity?
4. Is there coordination in related areas of performance?
B. Body image (Possible overlapping in this area between motor and intellectual)
1. How does he associate size as compared with space?
2. How does he manipulate his body in space?
3. How well does he identify parts of his body by themselves or in relation to another person or a picture?
4. How does he use his body (hands, etc.) to perform tasks?
a. Can he use his hands as tools, i.e., pull them through sand or clay or make pictures in sand or clay?

b. Can he manipulate such hand tools as pencils and pens or such objects as blocks and puzzles?
c. Can he use scissors adequately?
d. Can he control his body while walking, jumping, running, crawling, climbing or somersaulting?
e. Can and does he sit attentively at a desk or table, in a chair or on a bench?
f. Can he relax his body while lying down?

The above guidelines, along with other usual procedures, provide quick and relatively easy observations, but ones of major importance to help teachers more quickly evaluate a child. Major research efforts are promising. Work is being directed toward increased understanding of causes of mental retardation, including both biochemical and experimental factors. Progress is being made in methods of identification, treatment, education, and more effective preventive techniques. Residential and community care are continually re-evaluated. Special public school placement is becoming more realistic and increasing rapidly. Cooperation and integration of services are becoming an every day fact. Yet there is much to be done, and the regular classroom teacher must play a more active role in identifying handicapped children.

Figure 1: Learning Capacity with Degrees of Retardation

	Preschool (0-5) Maturation and Development	School Age (6-21) Training and Education	Adult (21 and over) Social, Vocational Adequacy
SEVERE	Marked delay in motor development; little or no communication skill; may respond to training in elementary self-help such as self-feeding	Usually walks unless there is specific disability; has understanding of speech and some response; can profit from systematic habit training	Can conform to daily routine and repetitive activities; needs continuing direction and supervision in protective environment
MODERATE	Noticeable delays in motor development, especially in speech; responds to training in various self-help activity	Can learn simple skills of communication, elementary health and safety habits and simple manual skills; some can learn a few simple reading and/or mathematics skills	Can perform simple tasks under sheltered conditions; participates in simple recreation; travels alone in familiar places; usually incapable of self-care
MILD	Often not noticed as retarded by casual observer, but is slower to walk, feed self and talk than most children	Can acquire practical skills and useful reading and arithmetic from a third to sixth grade level with special education; can be guided toward social conformity	Can usually achieve social and vocational skills adequate for self-care; may need guidance and support when under unusual social or economic stress

CHAPTER III

HEALTH IMPLICATIONS FOR THE PRIMARY-GRADE HANDICAPPED CHILD

A man not feeling well went to see his doctor. On his return his wife asked, "What did the doctor do?"

"Do!" the man replied. "He didn't do anything. He just LOOKED at me!"

Exasperating as this may have been to the man, it does illustrate an excellent point. A doctor does look at his patient. He does not do this to see what color eyes his patient has or what kind of a suit he is wearing. The doctor's trained eyes are looking for symptoms that may give him clues to the patient's general health. The man's comment to his wife seems facetious, but in reality it illustrates the importance of LOOKING. The comment, however, does not indicate the doctor did any thinking about what he saw.

The importance of looking, listening and thinking about what is seen and heard cannot be overemphasized. As professional people, teachers are highly capable of looking and listening and with their background and knowledge are capable of giving thought to what they see and hear. Teachers in the primary grades are in an enviable position. They know their children well, see them every day, know the children's parents and home conditions and have the children's confidences. Who then can be in a better position to see and interpret what is seen? Teachers are vitally important to the general health of children. This thinking is reflected in the American Public Health Association's guide, "Services for Handicapped Children," in which it is recommended that teachers be encouraged to report their observations. A doctor is trained to look and to think about what he sees -- why not teachers?

Because of the present day philosophy of health and care of the people, intensive research programs have been developed to delve deeply into causes and effects of disease and provide information to those concerned. Such research has resulted in new and effective public health measures. Physical fitness programs for children and adults have been stressed in recent years. There is greater availability of medical and hospital care. Importance is given to early recognition of handicapping conditions. This early recognition allows for diagnostic evaluation, treatment, periodic examinations and long-term planning. People have better nutrition, education and housing and an unprecedented standard of living. Life expectancy 2,000 years ago was only 25 years. At the turn of the century it was 49; in 1950 it was 67. Today it is beyond 70. Yet, with all this, authorities estimate about 30,000,000 people suffer from chronic disability. Of these, four and one-half million are children.

Teachers are most concerned with these children. Most children grow and develop according to rates and patterns considered to be normal. The great majority of children take advantage of social and cultural opportunities and become independent,

adjusted, and contributing members of society. However, some children deviate from this pattern. These are the children who need help. Their problems may be physical, mental, emotional or social. Severe disability such as spina bifida conditions, muscle paralysis, and cerebral palsy are easily identified. But what about the child with only a slight defect? It is true most children have preventive shots at an early age, most school systems require a physical examination of a child before he enters school (it is mandatory in Illinois) and most schools have some tuberculosis preventive program. It is still conceivable, however, a child may have one or more undiscovered slight handicaps which may result in a serious major handicap.

The question is: What are the characteristics of such handicaps? Such a listing, although enlightening, is frightening; and teachers may rightfully say these areas are not their business, but the business of physicians. However, teachers who think about what they see may get a child to a doctor for an early diagnosis when the child may not get there any other way.

If the concept of prevention is to be made practical, the teacher must play an important part. Teaching is no longer limited to the three R's. Each year, or semester, brings 25 to 35 different individuals to a teacher, who is responsible for them all. Some of these children are tall, some short, some heavy, some thin, some weak and some strong. The teacher's first responsibility is to understand all of them. Most teachers have had more than one course in child development. The names Gesell, Amatuda, Seman, Doll and others are familiar.

Gesell says that regardless of any category into which society may wish to place a child, he still is a child. His growth, development, behavior, performance and intellectual achievements will follow the natural laws which apply to all human beings. Each child is also an organic whole. Seman says all development, from the first movement in the fetal stage through the developmental sequences of infancy, points to an interdependence of all parts. People are neither aggregates nor composites of parts. Each person is an organic whole.

To each individual child, then, the teacher has a responsibility. If the teacher suspects a child has a handicap or a potential handicap, the teacher's responsibility is to see that such a condition is referred to a physician for immediate medical attention. With a diagnostic medical evaluation, the immediate and future needs of the child can then be planned.

The results of medical, psychological and social evaluations are necessary as the basis for an educational evaluation; and just as a medical, social and psychological evaluation must be written with professional competence, so must the educational evaluation. Those experienced in the education of exceptional children are the qualified specialists who should supervise and give guidance in the continuing care of the child who, for any reason, is unable to profit from the regular classroom. The regular teacher, in the awareness of the importance of early identification of subtle handicaps and in the knowledge of referral methods, may well be the one who initially directs to

an appropriate educational program a child otherwise doomed to failure and frustration in the regular classroom.

It is conceivable, but highly improbable, that a perceptive teacher may have the ability to detect early symptoms of some of the conditions that occur in children and be able to give an unqualified diagnosis. Included in such conditions may be any of the following: cystic fibrosa, malnutrition, lead poisoning, infectious hepatitis, progressive ataxia, anemia, progressive muscular dystrophy, otitis media, leukemia, rheumatic fever, parasitic conditions, diabetes, heart conditions, asthma and vitamin-deficiency diseases. If a teacher has the ability to diagnose such diseases, he should continue his education and become a physician because a great deal of knowledge is necessary to make such diagnoses.

A teacher does not have to diagnose a case to be able to detect such things as unusual skin conditions, tics, nailbiting, compulsions, frequent common colds, inflammations of the mouth, unusual gaits and deviating developmental patterns, all of which may need medical attention. Herein lies the importance of the teacher to the child. Over a period of time the observations a teacher makes may save a child's future.

A doctor giving a routine medical examination follows a general outline. The regular classroom teacher may use some of the same basic clues to assist with identification of problems which should then be referred to a physician:

1. General appearance: measurements of height, weight, etc.
2. Head and neck: circumference of head and chest; visual, auditory and speech apparatus
3. Cardio-respiratory system
4. Gastro-intestinal system
5. Neuromuscular and locomotor systems
6. Gait
7. Testing of muscle strength and joint range
8. Daily activities in patient's life

Following are observations a teacher may make and the implications possible if the conditions exist:

	GENERAL APPEARANCE	POSSIBLE IMPLICATIONS
1.	Does the child appear retarded in growth for age?	Malnutrition
2.	Does the child have sores or cracks at the corners of his mouth?	Vitamin B deficiency

3.	Does the child have any unusual condition of the skin such as sores, rashes, eruptions or peeling?	Eczema, impetigo, contagious disease
4.	Is the skin dry or lemon in color?	Anemia
5.	Is there pallor of the lips and skin?	Malnutrition
6.	Does the child have rounded shoulders?	Malnutrition or condition in spine
7.	Does the child have a swayback?	Congenital dislocation of hips, progressive muscular dystrophy, forward placement of pelvis
8.	Is one shoulder higher than the other?	Abnormal lateral curvature of the spine: scoliosis
9.	Does the chest appear too large?	Asthma, barrel chest

HEAD AND NECK		POSSIBLE IMPLICATIONS
1.	Does the child have a squint?	Central nervous system deficit
2.	How does the child look at a printed page? One eye at a time? Too close?	Central nervous system deficit, eye problem
3.	Can the child follow a target with his eyes? Laterally? Vertically? Diagonally? Circularly?	Central nervous system deficit
4.	Does the child move his head backwards to look up?	Poor ocular control, central nervous system deficit
5.	Does the child rub his eyes and complain of hurting, watering or itching?	Eye impairment

6.	Does the child appear to hear normally?	Impaired hearing
7.	Does the child ask for repetition of questions?	Impaired hearing
8.	Does the child have running ears?	Ear infection
9.	Does the child appear to miss the point in movies and television programs?	Impaired hearing
10.	Can the child hear a bell, a clap or a whistle if he cannot see where the sound is originating?	Impaired hearing
11.	Does the child follow directions?	Impaired hearing, central nervous system deficit
12.	Does the child respond to speech?	Impaired hearing
13.	Does the child have auditory distortions?	Central nervous system deficit
14.	Does the child stutter?	Emotional problems
15.	Does the child use sentences only of two or three words?	Central nervous system deficit
16.	Does the child distort speech?	Central nervous system deficit
17.	Does the child use poor sequencing?	Central nervous system deficit

	CARDIO–RESPIRATORY SYSTEM	**POSSIBLE IMPLICATIONS**
1.	Does the child get out of breath going up stairs?	Heart condition
2.	Does the child appear fatigued and weak?	Malnutrition, heart condition
3.	Is the child breathless with mild exertion?	Malnutrition, heart condition

4.	Does the child have poor circulation (cold hands and feet)?	Heart condition
5.	Does the child have clubbing of fingers? Blue nails?	Heart condition
6.	Does the child have periods of marked shortness of breath and wheezing?	Asthma
7.	Does the child have a dry cough?	Asthma

GENITO–URINARY SYSTEM		POSSIBLE IMPLICATIONS
1.	Does the child need to urinate frequently?	Diabetes

The child who is not following or has not followed the basic sequences of development will be having trouble in school. It has been said that the muscle is first, then the nerve and then the mind. Gross motor activity must come first. The infant begins by waving his arms and kicking his feet. Then he rolls over and soon is sitting. Before long he is moving about in a crawling fashion, which soon becomes reciprocal creeping. He then begins to explore his universe. The parent who keeps her child in a playpen and does not allow him to creep does the child a great disservice. The first concepts of laterality develop at this age. Soon concepts of body image begin to develop. The child becomes aware of his body parts.

Soon he is pulling his body up and is walking. Then he begins talking and relating himself to other objects and people. He walks, runs, climbs, steps over, ducks under and crawls through his everwidening universe. Spatial relationships develop, and soon he knows how much space his body occupies. Language development and concept development go hand in hand with his ability to get around in his world. Soon he relates to a crayon or piece of chalk and is marking up the walls, first with bi-lateral motions, then vertical. Next he makes a circle usually flattened at the midline, but a circle nevertheless.

The child is at this point approximately three years old and perceptual development is beginning. Along with his continued need for gross motor activity and language development, he begins this perceptual progress which will continue through his seventh year. By now the child is taking auditory and visual clues and translating them into motor performance. His control of his body parts has developed well enough now to allow him to cross the midline with feet and arms. He hops and jumps and enjoys rough and tumble games.

Next in his development will be his ocular control. He sees likenesses and differences.

Concepts of size, space, color and distance develop. He enjoys nursery rhymes and is content to repeat them over and over. Along with this progress comes an ever-increasing muscular strength. Children who have the widest range of neurological development usually do the best work in the first grade of school.

If neuromuscular and locomotor control is so important, what can teachers see, by using the following questions and implications, that may be the causes of poor school work?

NEUROMUSCULAR–LOCOMOTOR SYSTEMS	POSSIBLE IMPLICATIONS
1. Is the child unable to identify his hips, ankles or shoulders?	Body image concepts not fully developed
2. Is the child unable to touch both elbows simultaneously?	Body image concepts not fully developed
3. Is the child unable to hop on his right foot? His left foot?	Lack of control of body parts
4. Is the child unable to cross the midline with his feet? His hands?	Laterality-directionality and midline problem
5. Is the child unable to walk forward on a balanceboard? Backward? Sideward or crossing one foot in front?	Balance not developed, weakness in neurological control, midline problem
6. Is the child unable to alternate activities across the center of gravity of his body?	Midline problem, balance and neurological control not fully developed
7. Which hand does the child prefer? Foot? Eye?	Establishment of dominance
8. Is the child's dominance all on one side?	Less difficulty if dominance is all on one side
9. Is the child unable to take a verbal clue and translate it into a motor performance?	Weakness in neurological controls

10.	Is the child unable to take a visual clue and translate it into a motor performance?	Weakness in neurological controls
11.	Is the child unable to do a bilateral movement? Unilateral? Cross lateral?	Lack of control of body parts
12.	Is the child unaware of the amount of space his body occupies? Is he able to duck under or squeeze through tight places?	Lack of spatial relationship development
13.	How does the child draw a circle? Flattened at midline? Reversed direction? Unrecognizable?	Midline problem, weakness in form perception, dominance crossed
14.	How does the child make a sq uare? Unrecognizable? Segmented? Did he reverse his direction?	Weakness in form perception
15.	Is the child unable to follow a target with his eyes? Do his eyes jerk at the midline? Is he unable to match perceptual data with motor data?	Poor ocular control, midline problem in eyes
16.	Is the child unable to sit up from a lying position? Does he need to use his hands or have his legs held down?	Poor abdominal muscles, poor control of body parts
17.	When the child lies face down, head resting on his hands, is he unable to raise his legs off the floor without bending his knees and to hold this position to a ten count?	Poor trunk extensor strength, poor control of body parts

18.	Is the child unable to balance on one foot? With his eyes closed?	Laterality problem, poor control of body parts, poor balance
19.	Is the child unable to differentiate colors?	Color blindness
20.	Is the child unable to follow a three-stage command?	Inability to take a verbal clue and translate it into motor performance

GAIT		POSSIBLE IMPLICATIONS
1.	Does the child walk with a toe-heel gait?	Mild cerebral palsy
2.	Does the child have a waddling gait?	Congenital dislocation of hips
3.	Has the child developed a limp or begun to complain of pain?	Legg-Perthes
4.	Is the gait unsteady? Does he walk with a wide gait? Does he have difficulty walking?	Progressive ataxias
5.	Does the child scissors his feet ?	Cerebral palsy
6.	Is the gait ataxic?	Cerebral palsy, progressive ataxias
7.	Does the child need the railing to help himself up stairs? Is he unable to alternate feet as he goes up the stairs?	Progressive muscular dystrophy, mental retardation, inability to alternate
8.	Is the child unable to stand with his eyes shut?	Progressive ataxias, central nervous system deficit
9.	Do feet appear shortened and markedly arched?	Progressive ataxias

MUSCLE STRENGTH AND JOINT RANGE	POSSIBLE IMPLICATIONS
1. Are muscles flabby and soft?	Malnutrition
2. Are the ligaments weak? Does the child turn his ankles often?	Malnutrition
3. Is the child unable to touch the floor with his hands while keeping his knees straight?	Tight hamstrings, poor flexibility in trunk

ACTIVITIES IN DAILY LIVING	POSSIBLE IMPLICATIONS
1. Does the child wash his hands often? Does he hesitate to get his hands dirty?	Compulsions, evidence of pressuring
2. Is the child unable to button his own jacket?	Fine coordination undeveloped, mid-line problem
3. Is the child unable to tie his shoe laces?	Midline problem
4. Is the child unable to ride a tricycle?	Central nervous system deficit, slow development
5. How does the child color and draw? Does he make figures too small for size of paper?	Evidence of pressuring
6. Is there a history of the child walking late?	Central nervous system deficit, cerebral palsy
7. What are the sleep patterns of the child? Night terrors? Bed wetting? Insomnia?	Emotional disturbances
8. Did the child creep much as a young child? Did he fail to creep?	Difficulty in school if this sequence passed

Figure 2: Health Implications for the Primary-Grade Handicapped Child

DISEASE OR CONDITION	DESCRIPTION	POSSIBLE IMPAIRMENTS	SYMPTOMS
ACCIDENTS Children: 30 per cent have head injuries	Major cause of death from age 5 to 34; 500 nonfatal injuries for every accidental death	Severe learning problems: loss of speech, physical disabilities, residual cerebral palsy, maiming, disfiguring, crippling, psychological problems	After head injury: look for bleeding of ears or nose, change in pupils of eyes, headache, drowsiness, lassitude, loss of consciousness
ANEMIA	Red blood cell disorder	Lassitude - inattentiveness Tiredness Lack of interest in school work or play Inability to concentrate	Pallor - especially yellow tint to skin Possible spoon-shaped nails
ASTHMA	Attacks of breathlessness	Serious deformity of chest Anxiety Psychological problems - emotionally upset	Marked dyspnea Profuse sweating Unproductive cough Labored breathing - inspiration expiration
CHONDRO–DYSTROPHIES Legg-Perthes Osgood Schlatter's Koehler's	Disease of growing portion of bone. Name denotes affected area. Legg-Perthes-head of femur Osgood Schlatter	No educational, residual, or physical disability with early identification and treatment. Lack of identification and treatment	Child begins to limp and sometimes complains of pain. Pain at knee joint

Figure 2: Health Implications for the Primary-Grade Handicapped Child

CHONDRO–DYSTROPHIES con't.			
Schuermann's	Tubercle of Tibia (skin) Koehler's - tarsal bones Schuermann's - vertebrae	may cause bone deformities Psychological problems Retarded educational development Necessity for education in special class	Pain when walking Rounded back
COMPULSIONS	Emotional malfunctions	Not outgrown, severely crippled personality	Tense and fearful, perfectionist in behavior
HEART CONDITIONS	Congenital (Infancy) Rheumatic (School age)	Impaired vitality - no energy Lassitude - inattentiveness Fatigue - lack of interest in school work or play Retarded educational development	Dyspnea, especially climbing stairs Palpitation-conscious of heart beat Cyanotic - blue nails Clubbing of fingers Fatigue
LEAD POISONING	Form of intoxication from inhalation or absorption through skin Young children - vulnerable to central nervous system injury	Distorted body - irreversible damage Mental retardation Destruction of brain cells Tendency to convulsions Older children - wrist drop, ankle drop	Anemia Colic Irritable Crying spells Increased drowsiness Restlessness Evidence of headaches

Figure 2: Health Implications for the Primary-Grade Handicapped Child

MALNUTRITION Possible causes: Poor nutrition Emotional tensions Underlying diseases Diseases of blood T.B.-Syphilis Intestinal parasites Digestive tract Heart Nervous system Lungs Kidneys Malignancy (rare)	10% or more below average weight for height and age (This is a possible standard for use)	Lassitude and fatigue Lack of interest in school work Lowered vitality Defective construction Physical condition below normal Poor concentration Poor school work	Poor growth - height retarded Lowered vitality Lacking in strength, tires Acute and minor respiratory infection History of walking late Poor sleeping patterns - night terrors, bed wetting Muscles-flabby, soft Relaxed and weak ligaments Poor endurance Pallor-dry lips and skin Poor circulation Possible excessive perspiration Fretful, irritable Poor school work Coated tongue Constipation - attacks of diarrhea Little resistance to infection Nervous symptoms - cannot sit still
OTITIS MEDIA	Complication from colds Infection of middle ear	Hearing impairment Need for special services for educational development	Sharp severe pain in ear Tinnitus-ringing in ears

Figure 2: Health Implications for the Primary-Grade Handicapped Child

PROGRESSIVE MUSCULAR DYSTROPHY	Changes in muscle disorder at synaptic junction of nerve and muscle Familial disease	Eventual wheelchair and bed patient Education in special class	Weakness in lower extremities Marked increase, especially in the size of the muscles and calves Gait unsteady Falls easily-frequently Difficulty in rising from floor Difficulty in keeping up with playmates Lordosis (swayback) Stands with shoulders far back Difficulty climbing stairs Uses hand rail Drags one foot after the other Waddling gait Awkward Weakness-trunk and pelvic girdle and thighs
RHEUMATIC FEVER (Major Health Problem)	Generalized systemic disease Inflammatory change High familial disease	Rheumatoid arthritis Heart conditions Lowered vitality Educational development retarded	"Growing pains" - joint pains Low grade intermittent fever Difficulty in writing Stumbles - drops things Grimaces Nervous - fidgety Fatigue, listlessness Loss of weight Pallor - anemia Nosebleeds Rheumatic nodules

Figure 2: Health Implications for the Primary-Grade Handicapped Child

TICS Blinking Grimacing Clearing throat Sniffling Jerking of shoulder	Habit spasms - rapid Usually associated with emotional disorders	Emotional problems - may lead to crippled personality Educational development should begin at child's own rate, without pressure Needs understanding teachers	As indicated
VITAMIN DEFICIENCY Such deficiencies are lessening in the United States. Rare to find deficiency in Vitamin A, Vitamin B. Deficiencies occur occasionally Vitamin C and D are uncommon	A - Affects epithelial tissue and vision B - Affects nerves C - Changes in bone - tendency to hemorrhage D - Affects bones	With early identification, no educational impairment If undetected, vision, changes in bone, neuritis, etc., may have an effect on school work	Night blindness, dry hoarse cough Respiratory symptoms Bouts of bronchopneumonia Sores and cracks at angles of mouth Purplish tongue Tenderness in legs (knees and ankles) Sweating about head, flaring chest, beaded ribs
EPILEPSY Grand Mal Petit Mal Jacksonian	Recurrent convulsive disorders of cerebral origin Tendency to have social stigma Thirty states accept such children for treatment	Major seizures may affect mentality Petit Mal - may go on to Grand Mal May have severe learning problems because of central nervous system deficit - not necessarily epilepsy	Grand Mal - Loss of consciousness, may vomit and may become incontinent Petit Mal - Stares for 30 seconds or less Jacksonian - limited in scope, jerking of one extremity which may become progressive to other extremities

Figure 2: Health Implications for the Primary-Grade Handicapped Child

EPILEPSY con't		May have multiple handicaps needing special services for educational development	
CEREBRAL PALSY (Mild)	Disturbance of neuromuscular mechanism affecting coordinated functioning of body Mild cerebral palsy may show no gross physical defects	Severe learning problems Perceptual in nature Subnormal in nature Memory Sequencing Concentration	Symptoms of the child with a chronic brain syndrome often present (See Chronic Brain Syndrome) One arm may be shorter Inability to alternate rapidly Clumsy and awkward Speech may be affected Mild toe-heel gait
MULTIPLY HANDICAPPED CHILDREN	Children with two or more handicaps: Visual Hearing Speech Behavioral Emotional Motor disability Multiplicity of clinical conditions	Affects achievement and potential Need special education classes Severe learning problems Conditions do not lend themselves to successful correction Physical disability associated with sensory, perceptual, emotional and intellectual impairment	Multiplicity of clinical conditions Poor physical ability Poor mental ability Poor perceptual development (See Chronic Brain Syndrome)

Figure 2: Health Implications for the Primary-Grade Handicapped Child

CHRONIC BRAIN SYNDROME (Includes such diagnosis as: Brain damage Poor coordination Perceptual Developmental lag Slow development Ocular defects) Central Nervous System in origin	Multiplicity of clinical conditions: Obscure and meager scientific knowledge Conditions do not lend themselves to successful correction	Physical disability associated with sensory, perceptual, emotional and intellectual impairment Incapacitating Severe learning problems Subnormal reasoning Memory Sequencing Concentration Mental retardation	Not following basic sequences of development Poor body image and concepts, gross motor activity poor Poor visual achievement forms Poor physical fitness Hyperactive Behavior problems Learning difficulties Perseverates

CHAPTER IV

THE PSYCHOLOGICAL ASPECTS OF A HANDICAP

Once it was believed the continuing progress in medical science and the greater insight into the human personality would lead eventually to a lessening of the handicaps of man. Today it is clear that great strides have been made in preventing some disabilities and reducing the severity of others. Blindness in babies because of untreated syphilis in the mother is practically nonexistent in the United States. The once common crippling as a result of polio is now rare. Discrimination and prejudice, which sometimes impose limitations on the abilities of those affected, are beginning to fade.

But all is not perfect. Modern medicine is saving lives at the cost of permanent physical disabilities. Premature babies, physically defective babies, children ill with acute infections or injured by accidents, all of whom once would have died, now live. They live with handicaps that may affect their life situations and exert a unique effect on their behavior. However, some variations of behavior do not produce a deviation from what we designate as "normal." Myerson's generalizations concerning variations in physique, which here have been paraphrased and changed somewhat, seem to be a good place for professional educators to start in understanding the psychological aspects of a handicap.[4]

Except in psychiatric cases no variation in the organism requires psychological maladjustment. If an emotional handicap exists in a person who has a disability, it does not stem directly from the disability, but has been mediated by social variable. This mediation occurs in the following manner:

a. The person lacks a tool that is required for behavior in the culture in which he lives, and he knows he lacks it.

b. Other individuals perceive that he lacks an important tool and devaluate him for his lack.

c. The person accepts the judgement of others that he is less worthy (or, to the degree that he is a product of his own culture, he judges himself as less worthy) and devaluates himself.

The a, b, c sequence is a unit. If "a" does not occur, "b" and "c" do not occur; and if "c" does not occur, there is no emotional handicap. However, it is inescapable that every handicapped person in the culture is going to be frustrated by the new psychological situations that arise because he lacks an appropriate tool for behavior. The mentally handicapped does not progress at the usual one grade per year; the crippled do not live in an environment where there are no steps to be climbed. The handicapped person is going to be exposed again and again to new psychological situations which are related to his variation.

Social and emotional conditions can also be frustrating to persons without a physical or mental handicap, and their aggressive and withdrawing responses may seem to be disproportionate to the frustrations of a new situation.

To alleviate problems, a teacher can lessen the newness of a child's psychological situation by recognizing the need for a manipulation of the environment. Also, the psychologically harmful situations are reduced if the handicapped individual is reacted to as a person and not in terms of his particular disability. This process requires that teachers change their well-developed stereotypes and that may be difficult to accomplish. It also requires that a handicapped individual be able to accept goals which are attainable. Also the multidimensions of handicaps impose many problems and demand much of the teacher in the early identification of problem areas so that even slight deviations are not compounded into major crippling handicaps.

The earlier a physical or mental illness is diagnosed, the more certain is the chance of recovery, or at least more certain is the chance of stopping the spread. This appears to be true for all types of exceptional children. As with an infection, if it is not detected, it may spread to other areas of the body. So may a physical handicap influence emotional adjustment unless this possibility is taken into consideration by the society in which the handicapped individual must interact. No other social institution besides the school, with the exception of the home, has the child for longer hours and is in a better position to detect the variations of children. Teachers can expect to find 10 to 15 percent of the children in their classes to deviate from the so-called "normal" to the extent of needing special educational programs. Some authorities even predict that 50 percent of the school population is in need of special considerations at some time or other during their school years.

Can handicapping or potentially handicapping problems be recognized in the early years of school? What are the indications of "something wrong" in the primary grades?

Of course, a totally deaf or blind child, or a child without the mentality to progress too much beyond the level of an infant, is easily recognized. Other lesser handicaps are often quickly found, but many defects such as motor and sensory handicaps and emotional problems may be masked and difficult to diagnose. Any variation, regardless of how minor, unless recognized and dealt with, has the potential of becoming a major handicap which may render the individual helpless to fulfill his potential.

A child with a handicap is not free to live normally, and as a result his handicap tends very basically to undermine his mental health. He becomes overly concerned with himself, and his handicap makes him feel inadequate and inferior. Conditions in which failure threatens loss of status and reduces the sentiments of self-regard are of the greatest consequence in personality development. To preserve self-esteem and status, the individual enlists the commonly recognized defense mechanisms of daydreaming, rationalization, compensation, regression and others as modes of adjustment. These defense mechanisms have a measure of good in each and are detrimental only when carried to extremes. However, they can and should be investigated in order to determine why they are being employed and against what they are being used as a safeguard.

Perhaps the psychological difficulty manifested in patterns of aggression, hostility, withdrawal, social maladjustment, educational maladjustment and other behaviors suggesting internal unhappiness are brought more clearly into focus in the school setting since they are more likely to be brought to the psychologists' attention. Teachers often refer a child for psychological evaluation because they just "don't understand why he isn't learning," or "he doesn't retain what he learns," or because he "won't sit still long enough to be taught anything," or he "won't listen." These perceptive teachers recognize something is wrong.

In these schools where teachers are sensitive to the needs and growing pains of children of all ages, referrals usually contain more emphasis on symptoms of internal distress and utilize the anecdotal record as a method of helping describe the behavior that brought about the referral. Isolated observations, unless written at the moment, can often be forgotten. Verbal descriptions of behavior over a period of time can help identify patterns of behavior that may be indicative of maladjustment and should be detected and corrected as early as possible. Though a difficult situation cannot always be changed, the child can be given help in understanding and facing consequences of the situation.

It is usually easier to recognize psychological disturbances in adults than in children. Adults have had a longer life span in which to experience emotional disturbance and have generally been exposed to more traumas than children. Their disturbances, therefore, are more easily discernible. The detection of disturbance in adults is also made easier by the society's structure, which puts more restrictions on adult behavior than on the behavior of children. Within the framework of most civilized societies, children are much more easily forigven their trespasses and their peculiarities than are adults. The unacceptable behavior of children is often tolerated because children are expected to "grow out" of these unacceptable patterns. Frequently, misbehavior on the part of children is even considered by their elders to be "cute," "smart" or "precocious," or the child is thought to be just "spoiled."

It happens, therefore, that deviant behavior goes unrecognized as a symptom of maladjustment. This phenomenon becomes apparent when, for example, a so-called normal child suddenly breaks away from this "normalcy" and indulges in unprovoked violence. "He was always such a good boy," a grieved parent may say or, "I just don't understand it; he was always so quiet, and he never talked back." After investigation, it is found that although this child had functioned more or less adequately within the usual confines of society, there was much evidence of maladjustment which went unrecognized until catastrophe focused attention upon it. If a disturbance can be so subtly disguised that it goes undetected in the normal course of a child's life, the trained observer must become aware of behavior which seems to fall into the category of normalcy, but which is actually symptomatic of maladjustment.

SOME COMMON DEFENSE MECHANISMS

Protective devices used by all people on an unconscious level permit the individual to

conceal an unacceptable truth (real or imagined) from himself. When defense mechanisms fail, the individual substitutes for them unrealistic behavior patterns which, although unsatisfactory, are more acceptable to him than the recognition of the unacceptable truth:

1. COMPENSATION	An emphasis on a particular personality characteristic or a substitution of a different characteristic in order to conceal a real or imaginary deficiency.
Example:	An overly unselfish child may hide a fear of being selfish; a child small in stature or lacking in strength may compensate the lack by aggressive play, teasing, fighting, noisy behavior or withdrawal.
2. PROTECTION	The individual unconsciously attributes to other persons or things the feelings that he himself experiences.
Example:	A child with aggressive impulses attributes aggression to other people. Thus a feeling of "I hate you" may be converted into "You hate me." A young child cries, "Bad chair!" because he has bumped it and displaces his responsibility to the object.
3. RATIONALIZATION	Rationalizing is defensive thinking motivated by the desire to retain self-respect. It is an attempt to find apparently good reasons for actions, making what is irrational appear to be rational. Rationalizing often takes the form of "kidding one's self" as to the real motives for conduct.
Example:	One of the most common types of rationalization is the attempt to justify actions or decisions by finding "good reasons" for them. A student knows that he should study but wants to go to the movies. He resolves the conflict by telling himself that too much study will ruin his eyes, that he'll be able to study even better the next day.
4. REGRESSION	Regression is going back to an earlier, less adequate mode of reaction. When an individual is confronted by problems, he "gives up" and reverts to such reactions as weeping, kicking objects around, stamping feet, etc. These reactions, perhaps, release tension, but seldom solve problems.

	Example:	When frustrated, children often revert to their earlier responses: fits of sulking, weeping, and threats that they will "run away from home."
5.	REPRESSION	Repression is the mechanism by which people resolve conflict situations by refusing to admit the existence of difficulties, defects, or particular motives.
	Example:	A jealous child who refuses to admit the existence of his baby sister is demonstrating repression; so also is the person who has conveniently forgotten some unpleasant obligation.
6.	AGGRESSION	A frustrated child may become aggressive when he has a serious social problem stemming from a character disorder. He eases his frustrations by striking out physically or verbally at others or at things; or he may lie, cheat, and/or steal. He usually resents authority figures.
	Example:	A child who has problems learning to read may give up in anger and refuse to try to read again. He becomes more and more antagonistic toward group interaction and people.
7.	WITHDRAWAL	A child may withdraw from a group or from human associations when he feels inferior, rejected or merely tolerated. He probably has experienced failure and does not want to expereince it again while he is being observed.
	Example:	A little girl does poorly in an athletic activity such as kickball. She refuses to participate again and stands on the edge of the crowd watching. She probably makes excuses of illness or injury to avoid participating.

CHAPTER V

HOW AND WHERE HELP MAY BE OBTAINED

Once a child has been identified as having a handicap, either physical or mental, the important step is to find professional help as soon as possible. Before seeking this help, the teacher must know what kind of professional person is needed. Therefore, the teacher's observations must be accurate.

A good primary teacher must be objective in looking at the children. A child's problem or handicap simply cannot be minimized or overemphasized because of a teacher's personal feelings. For example, a teacher cannot overlook any problems in a child whose father is the mayor or whose mother is president of the PTA. Too often, when there are personal, not objective, feelings involved, a teacher may point to extreme behavior and overlook the obvious. There's a true story about a class of mentally retarded children who usually brought things in to show at "share and tell" time. One child brought in a bundle wrapped up in a white towel and laid it on the teacher's desk. When the teacher unwrapped the bundle, what was there but a dead duck. She scarcely knew how to react: so she mentioned the feathers, the color, the shape, etc. All this time one little boy was staring at the duck with eyes bugged out, and then he said, "My gosh, a dead duck!" The teacher had ignored the obvious and had stressed the less significant factors.

The children must be viewed individually and in terms of characteristics not previously considered. Children should be evaluated in terms of the behavior characteristics they show, not by labels. Labels such as "withdrawn," "aggressive," "mentally retarded," etc., are of benefit only in order to help the child. If a teacher truly feels a child is mentally retarded, the teacher has an obligation to the child and should not feel she is dealing him a fate worse than death by referring him for psychological evaluation. If teachers cannot realize the importance of special classes and qualified personnel, how can parents be convinced the child needs such special services?

Some teachers also feel that to refer a child for any special services is a threat to their security and a reflection on them as teachers. In this day of expertise, everyone is not qualified to deal with every child's problem. Individuals react differently to each other, and people responsible for administering special services have been trained to do so. Teachers must remember the greatest service they can give to children is to see that each child receives the help he requires. The teacher may also be the only professional person who has enough contact with this child and enough knowledge to perceive that the child has a problem and needs special help. If a teacher fails to identify the child as handicapped, the child may go unnoticed until it is too late. If the child's behavior in school is no problem, or his parents are not concerned with his lack of achievement in school, there may be no special movement toward doing something for him.

If the teacher does refer a child for psychological evaluation, and the evaluation shows there is no particular handicap, the teacher should not be discouraged or have feelings of inadequacy about making referrals. Teachers will become more adept at identifying the child's needs and making referrals as time proceeds. It is better to identify wrongly than not to identify at all. Information may be brought out in the staffing of a child which may be most beneficial in helping the regular classroom teacher aid the child. The information may change the teacher's perception of the situation and change an attitude for the better toward the child.

In many instances the child's problem may only reflect in the fact that he is not achieving at the expected rate. The first step for a teacher is to ask the principal for a referral blank so the child may be referred for a psychological examination. There may not be a psychological examiner in the school district. In that case the teacher can talk with the principal about counseling the parents to take this child to a mental health center or to the Institute of Juvenile Research. It may be that the teacher, herself, will call these authorities and discuss the case with them before counseling the parents. If there is no mental health center in the community, there will no doubt be one located nearby. The parents can be referred to this center.

First of all, however, the teacher must consider the professional personnel with the school or school district who may be of help to the child. Many modern school systems have special facilities for these children. Many do not have such facilities, and any help must come from the teacher and other professional staff members within the school.

If a child has a health problem, medical and dental, the school nurse or the county health nurse may be contacted. Vision or hearing problems may also be referred to the nurse. If there is no county health nurse, the teacher may know of an agency which can assist the family.

If the child has problems of social adjustment and/or emotional problems which are interfering with his learning and his attendance, he may be referred to the school's home visitor. In various districts this person may be called the social worker, the visiting teacher or the visiting counselor. There may be a speech problem which can be referred to the speech correctionist. The reading consultant, school doctor, psychiatrist, attendance officer, nurse, educational or guidance counselor, director of special education, or special teacher may be of help.

Each teacher should follow the chain of command in her particular school. She should talk problems over with her principal and make him aware of her intentions in seeking professional help. In discussing a problem, he may think of some solutions which the teacher did not consider. Also the principal must be aware of what is going on in his school. It is most embarrassing for a principal to learn about these things from an outsider. Also, if some necessary service is not available within the school, he may request it from another school or another district.

Besides the school there are other agencies extremely interested in children. Teachers may counsel parents in soliciting aid from some of these agencies or explain a source through which the parents may obtain the information they need. The most comprehensive reference which should be in every school principal's office for the use of teachers is the *Illinois Directory--Health, Education and Welfare Resources*, which is compiled by the Illinois Commission on Children. This book may be obtained for $3.00 through the Commission, Room 1010, Myers Building, Springfield, Illinois, 62701.

Many parents may simply seek information as to where they can go for help, and a teacher should be prepared to give them assistance. For example, how many teachers know about the Dyslexia Memorial Institute, which diagnoses and treats reading difficulties in normal or highly intelligent children? There are many other special centers:

1. Illinois Department of Public Health
2. Illinois Department of Children and Family Services
3. Illinois Association for the Crippled -- Easter Seal Society
4. Illinois Division of Services for Crippled Children, University of Illinois
5. Illinois Association for Mental Health
6. Illinois Department of Mental Health
7. Division of Special Education Services, Office of the Superintendent of Public Instruction

The Division of Special Education Services assists local school districts in setting up special classes for handicapped children. It furnishes consultative services to school districts concerning the following types of children:

1. Physically handicapped
2. Maladjusted, including socially, educationally and emotionally
3. Educable mentally handicapped
4. Trainable mentally handicapped
5. Speech defective
6. Visually handicapped
7. Auditorially handicapped
8. Multiply handicapped

CHAPTER VI

EFFECTS OF LEARNING DISABILITIES ON PRIMARY-GRADE CHILDREN AND HOW TO IDENTIFY THEM

Disability in any area of the maladjusted is not measured only in terms of the extremes. In medicine, for example, doctors aim at symptomatic treatment of suspected illnesses, rather than treatment of just deathbed cases. If doctors only treated those advanced cases with 104 degree fever symptoms, etc., the attrition rate for these patients would be much higher; and there would be cause for great alarm. The same is true of special education. Treatment must be primarily directed at those who possess the greatest potential for rehabilitation. Obviously this potential is not found in children with the severest disabilities. Treatment must definitely include the severe, but must be basically geared to those with beginning symptomatic problems, and treatment must begin early.

LEGAL DEFINITION AND CLASSIFICATION

"Maladjusted children" are those children between the ages of 5 and 21 years who, because of social or emotional problems, are unable to make constructive use of their school experience and require the provisions of special services designed to promote their educational growth and development. Definitions of problem categories in children must be made before proceeding to any other steps:

1. "Social problems" means poor social adjustment associated with such factors as cultural deprivation, educational retardation, population mobility, socio-economic considerations and inadequate school opportunities.

2. "Social problems" may also mean serious educational maladjustment resulting from extreme discrepancy between ability and school achievement associated with such factors as perceptual impairment, severe learning disorders and neurological involvement.

3. "Emotional problems" means persistent and intense personality deviations or aberrations associated with poor mental health.

SCHOOL DEFINITION AND CLASSIFICATION

Though there are definite differences among the three groups, there are the following outward characteristics which are found in each:

1. Highly distractable, short attention span
2. Lack of motor control

3. Dissociation
4. Figure -- background disturbance
5. Perserveration
6. Lack of self- and body image concepts
7. Poor coordination

Children who are not achieving in a normal classroom situation and exhibit one or more of the above characteristics should be referred to a specialist for evaluation. The child should have a complete physical examination, psychological testing and neurological examination. If tests confirm some difficulty in one of the foregoing areas, placement should be made in a proper situation.

For a brain-injured child the next steps are:

1. Conference with parents to explain the problem and to secure approval and positive approach
2. Observation of child in classroom and discussion with teacher
3. Establishment of communication with attending physician
4. Conference with child to establish positive attitude toward special educational placement
5. Contact with social worker who will be involved

The children with learning disorders caused by neurological involvement have been given many names, including brain-injured, perceptually handicapped, minimal brain dysfunction, neurologically impaired, etc. Basically this kind of child does not perceive the world around him as others do; hence, he does not respond in the normal manner expected in given situations. He is often aggressive and commonly referred to as a behavior problem. He seldom has a genuine success either in school or at home.

It is estimated by some experts that between 15 and 20 per cent of the school population in the United States falls into this latter category. Fortunately, some are able to function satisfactorily because of an understanding and patient teacher. Some can be helped sufficiently by social work therapy. However, nine to ten per cent remain to be placed in special classroom situations. Such situations may include the following:

1. A highly structured situation must be geared to each child's individual needs and at a level where he can meet success.
2. Each child's disabilities and social and emotional problems are the basis for formulating his program.
3. Motor controls and improved self-image must be developed.
4. Dominance is reinforced when necessary, and work is constantly presented to improve both visual and auditory perception.
5. Through short, successful assignments, attention span is increased; and as success is seen, hyperactivity decreases.
6. This special class setting becomes a place for success in every task, no matter how small.

PROGNOSIS FOR THE BRAIN-INJURED CHILD OF NORMAL INTELLIGENCE

WHO HAS HAD SPECIAL SERVICES IN ELGIN, ILLINOIS

A program has been set up in Elgin, Illinois, for the brain-injured child. In this program the child is returned to a regular classroom for the afternoon session. This procedure begins at the onset or as soon as there has been enough positive gain in behavior and response patterns.

The regular teacher is asked to try to fit the child into her group socially and assure him that she and the children want him. Most cooperating teachers plan their afternoon programs to include music, art, physical education, science, etc., where the child can meet success, contribute verbally and become part of the group.

The special teacher travels in the afternoons for the purpose of following progress of those in the program and working with returnees and giving them supportive assistance when necessary.

As the child's abilities increase, he is gradually given more classwork to do. When all tests indicate the child is ready, he is returned to the regular class full time. The special teacher visits at least once a week and tutors when necessary. The entire program is a cooperative venture where the special follow-up will continue until the child's adjustment is complete.

At the end of its third year of operation, there had been four children returned to their regular classes with success. One severe epileptic had to be removed from school completely because of an increased number of seizures. One was found to be educable mentally handicapped; and one had a physical handicap too severe to enable her to handle the program. Going into its fourth year, the teachers and special personnel involved anticipated returning four more to the regular classroom, so 8 out of 15 who began the program met with success.

Thus, it appears, if teachers can discover these children early, before the frustrations become too great and the academic failures too severe, there is a good chance of rehabilitating the majority of them.

CHECK LIST FOR PLANNING AND ADMINISTRATION OF GROUP 2 CLASSES

1. Development of awareness of the problem
   a. Accumulate case histories and psychological evaluations of children
   b. Emphasize unique needs of children with principals and teachers creating faculty demand for service
   c. Interpret needs to parents to obtain emotional support if needed

2. Presentation of documented cases and proposed program to school administration
   a. Unique characteristics of these children
   b. Unique characteristics of classroom and materials
   c. Special qualifications of the teacher
   d. Proposed program of services
   e. Anticipated enrollment

3. Securing a teacher
   a. Training and experience desired
   b. Sources of such teachers
   c. Personal characteristics desired

4. Classroom situation
   a. Central location in school district
   b. Isolated location in the building
   c. Specific features: freedom from distractions of traffic noise; visual stimulation; storage facilities
   d. Freedom to individualize and improvise with equipment and materials

5. Rehabilitative program with emphasis on continued affiliation with peers in regular class and eventual return to regular classroom
   a. Class hours: part of day in special class, part in regular class
   b. Teacher travel with follow-up instruction and supportive activity
   c. Pupil transportation for short day
   d. Supportive services of school social worker, speech therapist, nurse, etc.
   e. Psychological re-examination, complete or in part

6. Admissions to program
   a. Case conference; psychologist, regular teacher and principal, receiving principal, special teacher, nurse, social worker, speech therapist
   b. Medical, neurological, etc., studies with appropriate feedback
   c. Special teacher conferences with regular teacher and principal
   d. Observation of child in regular room by special teacher
   e. Home visit by special teacher to interpret environment
   f. Conference by special teacher with child
   g. Trial period in special class
   h. Establishment of communication between special teacher and medical or clinical supervision where indicated

7. Promotion of insight and support for service
   a. Local building faculty and reguiar and special class schools
   b. Parents, individually and as a group
   c. Parents generally, such as PTA groups
   d. General faculty of school district
   e. Community through special groups, news media, projects
   f. School administration through progress reports, case reports, etc.

8. Dismissal and follow-up
   a. Case conference; all involved in school and specialists
   b. Possible complete, or at least partial, psychological re-examination
   c. Conference with receiving teacher and principal by special teacher
   d. Parent conference with special teacher
   e. Periodic supportive work by special teacher to regular teacher and child, including observations and tutoring
   f. Possible transfer to other service such as itinerant program for learning disorders, slow learners, etc.

9. School progress
   a. Cumulative folder; information to succeeding teachers, etc.
   b. Suggestion regarding vocational considerations for social worker and guidance personnel

CHAPTER VII

DIFFICULTY, IMPORTANCE AND WAYS OF IDENTIFYING THE VISUALLY IMPAIRED

The term "visually handicapped" refers to children who have no vision or whose vision is so limited that they must have special consideration in an educational setting. Visually handicapped children have demonstrated that they are more like those with normal vision than they are different from them. They have the same basic physical, intellectual and emotional needs as all children.

The legal definition for blindness is a visual acuity of 20/200 or less in the better eye with the best possible correction. The partially sighted will have visual acuity ranging between 20/70 and 20/200 in the better eye with the best possible correction.

For educational purposes the legal definition is not suitable when considering placement. Just because a child is legally blind does not automatically mean he will need to read braille. Quite to the contrary, a large number of these children read ink-print books. A child really should be classified according to his mode of reading. A child is "partially sighted" if, after all possible treatment and correction, his vision is so low that he requires special materials such as magnifying devices or other equipment and unusual consideration in the classroom and other special situations, but still uses sight as his chief channel of learning. For educational purposes a child is considered blind if, after all possible treatment and correction, he has no vision, or so little vision that he relies upon the senses of touch and hearing rather than on sight as his chief avenues of learning.

CHARACTERISTICS OF CHILDREN WITH VISUAL PROBLEMS

The teacher may contribute valuable information to the child's cumulative record by noting her observations in a variety of school situations. The teacher, more than any other school person, can observe the changes in a child's appearance or behavior. A child manifesting any of the conditions listed below should be referred to the school nurse:

1. Progresses at a rate below that which may be considered appropriate for children of approximately the same age, grade and similar intelligence as shown on test scores
2. Fails to complete long reading assignments or other school tasks involving extensive eye use, especially when time is limited
3. Understands the basic principles involved in certain areas of study such as long division, but makes errors in the comparatively easier procedures such as addition, particularly when working with long columns of figures

4. Remembers and understands materials read to him better than he remembers that which he reads himself
5. Attempts to brush away blurs
6. Rubs eyes excessively
7. Frowns frequently
8. Blinks more than usual
9. Cries often or is irritable when doing close work
10. Twitches facial muscles and squints for distant or close work
11. Shuts or covers one eye
12. Tilts or thrusts head forward in order to see better
13. Holds books or small objects unusually near or unusually far from his eyes to see them clearly
14. Has difficulty in reading or doing other work requiring close use of the eyes
15. Fails to see objects not in his direct line of vision
16. Stumbles or trips over small objects
17. Has difficulty determining the exact location of objects and often loses place while reading
18. Cannot participate in activities requiring distant vision, including board work, telling time by school clocks
19. Withdraws from social contacts
20. Is unduly sensitive to light
21. Has frequent temper tantrums
22. Has short attention span when doing board or map work
23. Shows lack of interest during field-trip discussions
24. Has poor alignment in writing

BEHAVIOR IN READING SESSIONS

1. Frequently changes distance of book from near to far as he reads
2. Tilts head to one side when reading
3. Screws up face when reading
4. Becomes inattentive during reading lessons
5. Reads only brief periods without stopping
6. Tries to guess words from quick recognition of a part of a word
7. Confuses letters and words which look somewhat alike
8. Skips letters, words or lines while reading
9. Tends to lose place on page
10. Reads worse the longer he tries

APPEARANCE OF CHILD

1. Eyes may be red-rimmed, encrusted or swollen, inflamed, watery or contain frequent sties
2. Eyes may be crossed or divergent

3. Eyeball may appear to bulge and be noticeably enlarged
4. Pupil may occupy the entire space of the iris
5. Lens may appear displaced
6. Iris may appear pinkish with a noticeable lack of pigment
7. Eye may be in constant, usually horizontal, searching motion which increases when child is under duress.

COMPLAINTS OF CHILD

1. Not being able to see well
2. Dizziness or headache
3. Blurred or double vision

To interpret ocular reports that may be in a child's folder, a teacher must know how vision is tested and what visual acuity means. The most common instrument used in vision screening is the Snellen Chart. One form, the letter chart, has eight rows of letters. The uppermost letter is very large and each row of letters gets progressively smaller down the chart. Another form, often called the Illiterate E Chart, uses a block letter "E" in its normal position, reversed, lying on its back, etc. The child is then to indicate in which direction the legs of the "E" are pointing.

Testing is done 20 feet from the chart although with a child who has low vision the testing may be done at 15, 10 or even closer for a more accurate finding. After a child has been tested, his visual acuity will be expressed in such terms as 20/20, 20/40, 20/100, etc. This does not mean that he has 20/40ths of normal vision. What this does mean is that he is standing 20 feet from the chart and the small line he can read is one that can be read by a person with normal vision (20/20) at 40 feet. Thus 20/100 indicates that, standing 20 feet from the chart, the child can read only the smallest line that a person with normal vision can read at 100 feet.

Taking a child whose vision is so low that testing must be done at five feet, one may see a reading of 5/70. Related to a 20-foot scale, the child would have the equivalent of 20/280, or very low vision.

Not all ophthalmologists or optometrists have the experience of testing and fitting low-vision glasses. They usually refer their patients to someone who has experience in this area. A good low-vision examination takes time and patience. It is not enough to give a report that states the child cannot see the large "E" on the chart, so he has less than 20/200 vision and is legally blind. For example, the kind of report necessary is like the one recently done by an ophthalmologist -- he expressed a child's visual acuity as 20/1432. This reading meant this child had to get within 20 feet of a sign to read it, while a person with normal vision could read it from almost a quarter of a mile away.

TEACHER'S ROLE

Identification of vision problems is not always easy. If a child has a physical handicap, cannot hear or is blind, identification is easily made; but the child with a limited visual loss often goes unnoticed. A young child whose vision is limited does not realize he does not see as well as the other children. He may be totally unaware other children don't have to get within three feet or so of a friend to recognize him. His lack of interest in playground activities and his fear of playing a game such as baseball can be caused by his inability to see the ball or even the pitcher. A normally good student with a vision problem may be inattentive and troublesome when the classroom activities involve lectures where the chalkboard or other visual aids are used.

Early identification is important for several reasons. A child's inability to learn to read may be caused by his inability to see correctly the material being presented. It is tragic to find a nine-year-old in a class for the retarded when the problem is not retardation but visual limitation.

Probably the most urgent need for early identification is to eliminate the unnecessary loss of vision in one eye, a condition called amblyopia ex anopsia. This is a condition where the eye appears to be healthy, but has poor or low vision that cannot be helped with glasses. This condition is a result of muscle inbalance causing the eyes to turn upward, inward or outward; or it may be caused by refractive errors present when the eye was learning to see.

An example of this condition is a child who has strabismus (crossed eyes) and sees double. This double image is confusing, so his mind tends to shut out the picture coming from the weaker eye and thus causes him to use only the stronger eye. The one eye becomes useless much in the same way an arm or leg tends to deteriorate if it is not used for an extended period of time.

A child may not be cross-eyed all the time. This condition may not be noticed until the child is tired. It is normal for a baby's eyes to "float" during the first three months of life. A doctor can determine if a baby's eyes are actually turned. A child will never outgrow crossed eyes.

Thus it is important that the teacher, especially in kindergarten and first grade, be aware of vision problems. Treatment can be successful if started by the age of six. As the child progresses beyond six, the chances for success rapidly decrease. It is better if treatment is begun at age three or younger. Since teachers do not see the children usually before the age of five, it is imperative that these teachers be able to identify a child with a vision problem.

MAKING REFERRALS

Teachers should make it their business to know to whom to refer children who manifest conditions that may indicate vision problems. In most schools the nurse is the person to be contacted. Some schools have consulting doctors or ophthalmologists. Some states have mobile eye clinics that travel to the schools. Trained personnel in these units do vision screening.

EDUCATIONAL PLANNING FOR THE VISUALLY HANDICAPPED

It is difficult for a blind child to function in a regular classroom without the assistance of a teacher who has the knowledge of materials and methods used in educating the blind. Until a few years ago any blind child who did not live in a larger city was sent to the Illinois Braille and Sight Saving School at Jacksonville. Today more school districts are establishing resource rooms such as those found in the large cities. One advantage of having classes in the local schools is that the children may remain at home. Not all children, however, can function in a public school program, and these children are better served in a residential school.

The resource room, with a special teacher in charge, assists the blind child who spends the majority of his time in the regular classroom with sighted children. The child goes to the resource room at certain times during the day for assistance in learning and using the special tools he needs. In some cases the child stays in his neighborhood school and is assisted by an itinerant teacher who serves several schools. The resource and itinerant teachers work with classroom teachers in developing programs and making special materials to be used by blind children.

THE PARTIALLY SIGHTED

Partially sighted children should be encouraged to utilize the vision they have. The first special classes for these children were called sight conservation or sight-saving classes. It was a fallacy to think not using the eyes would save them. To the contrary, eyes that are not used will deteriorate as explained in the discussion of strabismus. At one time 14 inches was considered the proper distance from the eyes to hold a book for reading. Since everyone's eyes are not the same, what may be correct distance for reading for one person may not be the correct distance for another. A child's ability to accommodate usually allows him to read at a variety of distances, but there are some children with low vision who must hold books so close to their faces that their noses touch the page. Of course, when a child holds his book and other objects close to his face all the time, he should have his vision tested to see if correction is necessary. Glasses will not necessarily help conditions such as the detached retina or retinitis pigmentosa, but they can correct defects such as nearsightedness (myopia) and farsightedness. (hyperopia).

It is also important to remember reading close is not harmful to the eyes. Reading in very poor light may cause eye fatigue, but will not cause a permanent injury. In fact, there is nothing one can do in the way of using his eyes that will hurt the eyes. Only physical injuries or disease may damage them.

When a child has been diagnosed as partially sighted it is not uncommon for school personnel to think that if large-print books are made available to the child, all his problems will be solved. It is important to have such material for children with low enough vision to need them, but the majority of the partially sighted can function successfully by using regular print.

In the primary grades the print used in books is quite large and in some cases larger than would be in large-print books used in other grades. Because of the large print in these books, special books may not be necessary. As the child progresses through the grades, the question of needing a larger print book can best be answered by the child himself. For example, the child can be given two copies of a book, one in regular type and one in large type. At first he may be encouraged to try the large print and then as time passes be allowed to choose his own book. In this way the teacher may see which book the child prefers.

Classroom environment must also be taken into consideration with partially sighted children. Some things a teacher may do include:

1. Giving preferential seating according to the eye condition
2. Avoiding circumstances which will cause the student to look toward a window to see class activities
3. Allowing the child to sit near the chalkboard and demonstrations
4. Stressing good posture and encouraging the child to hold up the book and not lean close to his desk
5. Providing recorded material for class assignments when necessary
6. Providing copies of tests which are on the board and which the child cannot see from his seat

Sometimes defects such as color blindness will necessitate special materials. There are new books which contain pages with different colored backgrounds or portions of the page with written text in different colors. Certain colors will reduce the contrast, making it difficult for him to see. The blue lines on notebook paper cannot be seen by some children. Specially ruled paper is available for these children.

Children who can see the chalkboard some days and not others may have some actual day-to-day change in their ability to see. Variations in light coming through the window may cause unnecessary glare and may be corrected by the teacher.

Some children, such as those with albinism, are hampered by too much light. Bright lights are painful to their eyes, and they usually wear glasses with tinted lenses. They work better in a part of the room having less light.

This chapter has included just a few of the problems that exist with children who have visual problems. Teachers need to understand, not pity, these children who are often considered clumsy because they bump into things they cannot see. Since a partially sighted child sees, he is often expected to function as well as his sighted friends. Because of this expectation he frequently has more psychological problems than a totally blind child because he is considered neither blind nor sighted.

Information and assistance concerning education of the visually handicapped is available from several sources including the following:

1. Dr. Robert Bischoff, Coordinator
   Education of the Visually Limited
   Northern Illinois University
   DeKalb, Illinois 60115

2. Dr. Evelyn Rex, Coordinator
   Programs for the Visually Handicapped
   Illinois State University
   Normal, Illinois 61761

3. Department of Exceptional Children
   Instructional Materials Center Section
   Office of the Superintendent of Public Instruction
   1020 South Spring Street
   Springfield, Illinois 62706

4. American Foundation for the Blind
   15 West Sixteenth Street
   New York, New York 10000

5. National Society for the Prevention of Blindness
   16 East Fortieth Street
   New York, New York 10000

Early identification and habilitation of the visually handicapped will definitely provide a greater understanding of their needs and assure them more success both in their school experiences and in living a more normal life.

CHAPTER VIII

IS MODERATE HEARING LOSS REALLY MODERATE?

When most people think of hearing loss, they tend to relate it to themselves and try to think what it would be like without hearing. Many serious problems, inconveniences and misunderstandings occur in this process. If a person should lose his hearing to the extent that he cannot hear himself speak, he would learn that his speech tends to become unintelligible within a few short years. Serious as this problem would be, it is minimal when compared to what faces a child who has lost his hearing before language has been developed.

A young child spends much of the first year of his life actively engaged in listening. By the time he is three or four years of age, he has learned to use correctly most of the rules of grammar which govern his native tongue. It is on this base that he develops all future communicative skills such as fluency in the use of language, the development of concepts and the intake of knowledge through reading, writing and speaking. When a hearing loss occurs, it deprives the child of his primary sensory avenue for learning language and for developing all language skills.

Samples of language written by deaf children help to show the impact of hearing loss on language. When a congenitally deaf child enters schools, he often has no language whatsoever. He doesn't know his name, nor does he know things have names Therefore, by rote memory of grammatical rules, he learns laboriously to construct language step by step. The following sentences were written by deaf children:[5]

7 years:	I see ball.
9 years:	He has a dolls many.
11 years:	I see a chair to school.
13 years:	A little baby doll sat in a cart and will learn for walking.
15 years:	He needs to show another your homes family.
17 years:	The boy's wondering to put some furniture on the table.

These errors are not caused by carelessness, nor do they indicate mental retardation. These sentences demonstrate the serious and grossly misunderstood handicap imposed on a child who cannot learn language through his hearing.

Therefore, the child with partial hearing (hard of hearing) who may be in regular classrooms gives every indication that, depending on the degree of hearing loss in the speech range, the age of onset of the hearing loss and other contributing factors, the development of language, concept formation, personality and school achievement may be affected.

THE HARD-OF-HEARING

To better understand the deprivation experienced by a hard-of-hearing child, teachers should listen to a recording by Dr. Earl Harford, Director of Northwestern University Hearing Clinic.[6] This recording imposes a hearing loss on the listeners and illustrates in a dramatic way the auditory restrictions experienced by the hard-of-hearing child. The record illustrates, among other things, limitations on loudness of speech and clarity of speech.

Figure 3 is a graph called an audiogram. The degree of loudness of sound is represented by the vertical numbers labeled "hearing level in decibels." The numbers across the top represent the frequency or pitch of the sound and are expressed in cycles per second. From left to right they range from low to high.

The middle frequencies of 500, 1000 and 2000 are most significant to the understanding of speech and are often referred to as "speech range." Loss of hearing in the speech range affects one's ability to hear speech.

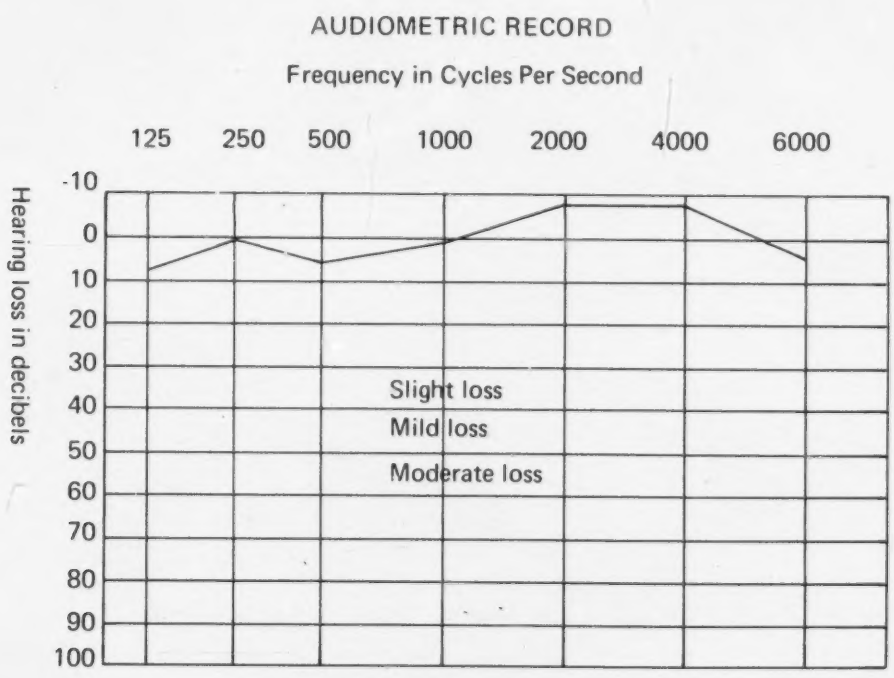

Figure 3. An Audiogram

Part I of Dr. Harford's recording demonstrates what it would be like to lose the ability to hear loudly enough. Reduced loudness of sound is termed as follows: slight -- between 10 and 20 dB; mild -- between 20 and 30 dB; and moderate -- between 30 and 40 dB.

While listening to the record, some people even question whether or not anyone is speaking. After listening to this record, one can begin to understand how neglect of such a hearing in a child can be responsible for a serious educational handicap. With early identification, however, and proper medical, audiological and educational follow-up, this needless waste of a child's potential can usually be prevented.

Part II of the recording demonstrates a type of hearing loss which will generally interfere with clarity in speech. The audiogram in Figure 4 shows that it is possible to have nearly normal hearing for the low tones, but have a sharp drop in sensitivity for the high frequencies. Many kinds of problems may arise in the classroom for a child with this type of hearing loss.

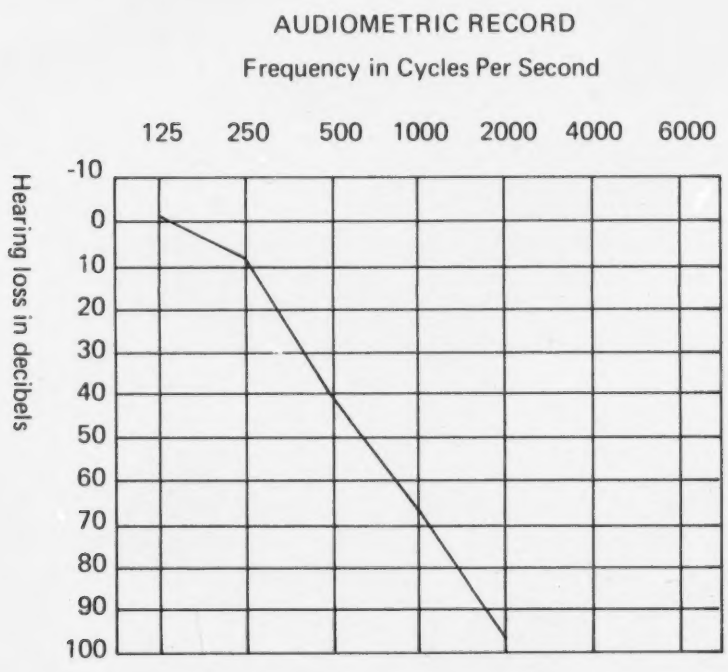

Figure 4. High Frequency Loss

A child may have extreme difficulty in understanding what is said to him because his hearing loss makes the words distorted, but he may respond accurately to the sound of the school bell or even a soft-spoken voice. Lack of understanding of the complex way in which humans hear often causes teachers to misunderstand, misdiagnose and mishandle a child.

An unpublished study of preschool children, diagnosed at a New York hospital as having hearing losses, was conducted to determine under what diagnosis the referral of these children was made. Hearing loss was cited as a possibility in fewer than 40 percent of the cases. At least 60 percent was referred to as mentally defective or aphasic or emotionally disturbed. Such findings suggest that various persons who deal with children on a professional level often lack sophistication concerning the behavioral patterns of young hard-of-hearing children.[7]

Where are these children with hearing impairment, and what is happening to them in school? While the identification of children through hearing screening programs ranges from good to nonexistent, the hearing conservation programs on a statewide basis are not adequate, though they are usually good. State programs must be supplemented by local ones. The Illinois Commission for Handicapped Children conducted a survey in 1962, results of which are still appropriate, to find out what schools were doing to identify children with hearing losses. The survey showed the need for improved services, which the Office of the Superintendent of Public Instruction is now attempting to implement.

Of the 1,758 schools reporting in the survey, over 50 percent did not have regular screening programs; there were no statewide standards at that time for regular testing or methods of testing; testing was done by individuals representing ten occupations or combinations of programs; of those responsible for administering the tests 21 percent had no training; two-thirds of the test equipment being used was not calibrated; 10 percent of the respondents did not notify parents or physician regarding the child who failed the test; and only one-third of the people making educational recommendations had any training in detecting hearing impairment.[8]

The Illinois Department of Public Health stated in 1962, that 3.5 percent of the school-age population probably have significant hearing loss. With proper treatment, however, 50 percent of these children can be prevented from having permanent ear damage. At least 1.7 percent of the school children have hearing losses in the speech range and need educational guidance or a special educational program. (See Figure 5)[9]

Research studies on the educational needs of hard-of-hearing children are limited. The results of a study reported in 1963 in the *Journal of Speech and Hearing Disorders* seem to indicate hearing-impaired children in the regular classroom may be educationally retarded on the average of from 1.0 to 2.24 years.[10] It was the opinion of the author that this gap between educational retardation and the presumed educational potential of these children may, in part, be caused by apathy of public school personnel and the

Figure 5. Estimate of Number of Hearing-Impaired School Children in Illinois -- 1965 and 1966 Based on Incidence and Degree of Hearing Loss, Pittsburgh Study, 1964[1]

	MEDICAL	EDUCATIONAL: 1.7% NEED GUIDANCE OR SPECIAL EDUCATION (LOSS IN SPEECH RANGE)					
Incidence and Degree of Loss	3½% Need Medical Referral	Not Significant 0-15 dB 98.3%	SLIGHT 15-29 dB 0.9% 9 in 1,000	MILD 30-44 dB 1.5% 5 in 1,000	MARKED 45-69 dB 0.2% 2 in 1,000	SEVERE 60 dB and Greater 0.05% 5 in 10,000[2]	EXTREME
1,474,274 Elementary and Kindergarten[3]	51,599	1,449,211	13,266	7,370	2,948	735	

[1]Proceedings of Conference on Collection of Statistics of Severe Hearing Impairments and Deafness, United States Department of Health, Education, and Welfare, 1964, pp. 41-44 (Study based on 4,096 children, ages five to ten).

[2]These statistics do not include children who are in special schools for the hearing impaired.

[3]These figures do not include high school, 710,415, nor parochial and private, 563,857.

personnel's failure to grapple realistically with the special educational needs of the hard-of-hearing school-age child. It seems unlikely, of course, that improvement of communication alone will close the gap completely. The author suggested the following educational plan of remediation: A teacher of the deaf or hard-of-hearing should work with the child in conjunction with small-group therapy conducted by speech and hearing clinicians.

A director of special education in a Chicago suburban community decided to explore the problem. He did not conduct a survey but investigated and reviewed existing school records and questioned his staff of speech therapists, nurses, psychologist and teachers. He found 122 children were known by someone to have significant hearing losses in the speech range of 30 decibels or greater. The distribution was 3 in kindergarten, 23 in the first grade, 10 in the second, 72 in the third, 23 in the fourth, 12 in the fifth, 9 in the sixth, 10 in the seventh, 4 in the eighth and 15 in high school.

After these children were located, a teacher opinion was requested to determine classroom achievement. It was discovered 18 had failed at least one grade, 43 were termed under-achievers, 28 were termed withdrawn, 17 were designated as social problems; only 9 were wearing hearing aids and only 11 were considered participating members of their classes. Some of the comments on the following reports from teachers should stimulate thinking about these situations:

1. Mary -- second grade, age 9, hearing loss--moderate. She gets along well with classmates. She wears a hearing aid. She has been retained twice and is now in second grade. She is in speech class and works well. A resource teacher is *not* recommended. The regular teacher feels Mary would benefit more by remaining in the regular classroom.

2. Joseph -- third grade, age 10, hearing loss-moderate in high frequencies. Joseph is being referred to a psychologist. He is described by the teacher as emotionally disturbed and withdrawn and is doing very poor work, which the teacher feels is caused by the emotional disturbance. The teacher recommends he be taken to a psychologist and he not be with a special teacher.

3. John -- first grade, age 6, hearing loss--moderate. John is well-liked by other students. He is working at low grade level, but his teacher feels he can do better. The teacher describes him as very inattentive and feels this is the cause of his poor work. No special teacher is recommended.

4. Kenneth -- fifth grade, age 11, hearing loss--severe, left ear. Kenneth is always fighting with other children, is constantly on report from school patrols, and spends every evening after school in the principal's office. Kenneth is a poor student, is often truant and does careless

work. He has an IQ of 101. Several recommendations have been made to have him checked by a doctor, but not one has been followed.

5. John -- first grade, age 6, hearing loss--moderate. John is capable and mature, but often needs to be spoken to several times. He is slow and never finishes his papers. He spends much of his time with his head on his desk. The teacher has to repeat instructions to him frequently. He has an IQ of 115, and his father feels that hearing loss should not hinder him. Special help is indicated, but not given.

6. Peter -- first grade, age 7, hearing loss--mild to moderate. Peter repeated the first grade, but is not keeping up with first-grade work. He does well in math and art. He has been given preferential seating in the classroom, but no special education has been recommended.

From these examples it is easy to see hearing loss in a child is not just a speech problem, not just a medical problem, and not just a personality problem. Because of its direct relationship to language development, communication and intellectual achievement, hearing loss can affect all facets of a child's learning and behavior. Preferential seating can only mean preferential failure unless teachers learn to look at the total needs of the child with impaired hearing.

CHAPTER IX

SPEECH CORRECTION

A classroom teacher has a prime responsibility for the development of speech. Every time a child speaks, an opportunity is presented for growth in speech skills. Good speech habits must be emphasized in all of the child's daily activities.

First of all a child must have something to say and a chance to say it. Everything a teacher teaches, every activity in the classroom, can be interesting to a child and can be a stimulus for speech. Most children want to talk about things which are important, so they must be provided with opportunities to discuss their current interests.

What are the basic principles for all speech activity? First, the child must learn to stand erect, hold his head up and establish eye contact. A teacher must then take time to listen respectfully to what the child says and must help him develop exciting presentations. Perhaps the best teaching method is that of asking thoughtful questions which can lead a child toward the correct answers. A teacher needs to create in the classroom the attitude that each speaker has something worthwhile to say and that everyone should listen. The speaker himself must take the responsibility for saying something worthwhile and speaking so the audience will hear and understand him. Thus the speaker and the audience have concurrent responsbilities for the success of every speech situation.

People, both children and adults, learn speech by hearing speech. As a part of a total communications program, children must be taught to listen. There are listening skills to learn just as there are skills to learn in other activities. The child's attention must be focused on the speech he hears. First, he should learn to distinguish between gross sound differences, then gradually distinguish among sounds whose identification requires finer discrimination. He must develop his memory span by using a few sounds or words and gradually increasing the number. He should learn the value of a "happy" voice and learn to recognize moods as conveyed by voice tones. "The Three Bears" and similar stories illustrate these things. A teacher should read to him and have him repeat short bits and then later the entire story. Puppet plays and dramatizations, poetry and some chorus work are useful.

What does the teacher do about children who have defects other than slight deviations from the normal speech expectancy? If there is a speech correction program in the school, the correctionist will survey the children's speech and select those who need special help. The correctionist will give the classroom teacher suggestions for helping children with speech problems.

For those who work in schools which do not have speech correction service, the teacher's first responsibility is to help create an interest in securing trained personnel

to work with speech situations, and the second is to secure help from some service for serious speech cases. In Illinois, teachers are fortunate. Foremost is the Division of Services for Crippled Children at the University of Illinois, which maintains itinerant clinics throughout the State. A speech and hearing specialist is present at each clinic. Teachers may refer a child if physical causation of the speech problem is suspected. The referral must be made through the division nurse, whom teachers should know in their area. Personnel at the division can supply medical diagnosis and care and, in some instances, remedial speech lessons.

Another resource is the college clinic. All of the 12 training centers in the State take some outpatients. Each speech clinic can supply information on outpatient programs.

Private organizations such as United Cerebral Palsy Association of Illinois and the National Soceity for Crippled Children and Adults provide certain speech services. Then there are private practitioners, but before a teacher suggests that a child go to one of these, the teacher should check the practitioner's qualifications through the Illinois Speech and Hearing Association, The Chicago Speech Therapy and Audiology Society or the American Speech and Hearing Association.

As for the teacher's own activity concerning the speech problem itself, it is better for the teacher to ignore the problem if professional speech help is not available immediately. In such an instance, the teacher should concentrate on giving the child a happy, satisfying school experience and paying only as much attention to the speech as the child can obtain through regular speech activity in the school and its related activities.

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FOOTNOTES

[1]Harold W. Heller, *Mental Retardation Newsletter,* Volume II, Number 3, Council for Exceptional Children, February, 1965.

[2]Jack Kough and Robert DeHaan, *Identifying Children with Exceptional Needs,* Chicago: Science Research Associates, 1955, p. 70

[3]Gerard J. Bensberg, Ed., *Teaching the Mentally Retarded: A Handbook for Ward Personnel,* Atlanta, Georgia: Southern Regional Education Board, 1965, p. 23.

[4]L. Myerson, "Physical Disability as a Social Psychological Problem," *Journal of Social Issues,* Volume 4, Number 4, 1948.

[5]"Outstanding Opportunities for a Career in the Education of the Deaf, Psychology of Deafness, Guidance and Rehabilitation of the Hearing Impaired." Evanston, Illinois: Northwestern University Institute for Learning Disorders.

[6]Earl Harford, "How They Hear," Northbrook, Illinois: Gordon N. Stowe and Associates

[7]"Identification Audiometry," *Journal of Speech and Hearing Disorders,* Monograph Supplement No. 9, September, 1961.

[8]Illinois Commission for Handicapped Children, Survey on "Identification Program for Hearing Impairment," 1962 (Not published).

[9]Proceedings of Conference on Collection of Statistics of Severe Hearing Impairments and Deafness, United States Department of Health, Education, and Welfare, 1964, pp. 41-44.

[10]Frank Kodman, Jr., "Educational Status of Hard-of-Hearing Children in the Classroom," *Journal of Speech and Hearing Disorders,* Volume 28, Number 3, August, 1963.